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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/535,731	01/23/2006	Naruhiro Akiyama	123991	7702

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EXAMINER	
KNABLE, GEOFFREY L	
ART UNIT	PAPER NUMBER
1791	

MAIL DATE	DELIVERY MODE
06/16/2009	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/535,731	AKIYAMA ET AL.	
	Examiner	Art Unit	
	Geoffrey L. Knable	1791	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *16 April 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-16* is/are pending in the application.

4a) Of the above claim(s) *1-8* is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *9-16* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *5/20/05; 1/23/06; 3/6/06*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. Applicant's election without traverse of group II, claims 9-16 in the reply filed on April 16, 2009 is acknowledged.

2. Claims 1-8 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on April 16, 2009.

3. Claims 9-15 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 9, line 6, "configured to rotatably supporting" is grammatically awkward and confusing.

In claim 10, lines 2-3, the reference to delivering to "said building unit as a second building unit" is awkward and confusing, it arguably not being entirely clear that "said building unit" here is in reference to the building unit defined in claim 9. Further, it is arguably confusing what is "as a" second building unit. Clarification of this language would help avoid any ambiguity in this regard.

In claim 11, no antecedent has been established for "said second building unit".

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 9-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-254529 to Toyo Tire taken in view of Loeffler et al. (US 4,443,290).

JP '529 discloses a tire building system comprising a building unit, said building unit including: a toroidal building drum (2) having: a bead lock portion (11) configured to fix a pair of bead cores; and a scalable and displaceable rigid core body (10) configured to support, from a radial inside, a carcass band toroidally bulged between said pair of bead cores. Further, the toroidal building drum is movable between workstations configured to mount applicable tire components onto a tire in the course of building and having the bead cores locked by said toroidal building drum, the drum being moved along an endless path configured to guide a movement of said building carriage among said workstations (note esp. fig. 1). JP '529 therefore discloses a tire building system as claimed except it does not appear to detail how the toroidal building drum is moved

along the path. It however is known in this art to be suitable and effective to guide a tire building drum along a desired path between stations using a guided carriage movable along the desired conveyor track - Loeffler et al. is exemplary (note also that although only first stage assembly is illustrated, applicability to second stage assembly is also contemplated - col. 4, lines 64+). To use a guided carriage to effect the movement of the drum in JP '529 along its assembly path would therefore have been obvious and lead to only the expected and predictable results. A tire building system as required by claim 9 would therefore have been obvious.

As to claim 10, JP '529 discloses that a cylindrical carcass "CC" is delivered from a cylindrical primary building drum "PD" to the toroidal shaping drum but further details of the building of this cylindrical carcass are not provided. Providing plural workstations with the drum sequentially guided from station to station to form a first stage/cylindrical tire carcass would however have been obvious as it is well known to form tires in general as well as a first stage carcass in particular, in such a multi-station apparatus - Loeffler et al. is exemplary (e.g. note cols. 1+ where the well known nature of plural workstation building systems are discussed; Loeffler et al. also specifically illustrate first stage/cylindrical building). The productivity advantages accompanying such an assembly line building system would have been readily apparent - only the expected and predictable results would therefore have been achieved.

As to claims 11-12, the path in fig. 1 (note the arrows) is illustrated as endless with workstations along both straight parts (including final workstation "400"). As to

claim 13, Loeffler et al. would suggest at least part of the path being straight (e.g. figs. 1 and 3).

8. Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by JP 2002-254529 to Toyo Tire.

As to claim 16, as already noted, JP '529 disposes a cylindrical carcass (CC) on a toroidally scalable shaping drum (2) where the beads are locked (with 11) and the carcass toroidally expanded. The carcass is further turned back around the beads (using 71/72) and application of sidewalls "SW" is suggested, the second stage steps being performed at plural workstations with the beads locked. Radial contracting the drum and unlocking the beads would have been understood as implicit to enable removal of the green tire.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-254529 to Toyo Tire taken in view of Loeffler et al. (US 4,443,290) as applied to claim 9 above, and further in view of Oku et al. (US 6,702,912) and Irie (US 6,508,640).

JP '529 does not discuss the vulcanization system to vulcanize the tires (the need for a vulcanization system being however implicit). Vulcanization systems with plural vulcanization stations/molds and associated opening/closing station to load/unload the tires are however well known and conventional in this art - Oku et al. and Irie are merely exemplary. Further, in view of Oku et al. (e.g. col. 14, lines 11+ and fig. 2), it is also known in this art to be desirable to provide the vulcanization system operationally adjacent the green tire building system to minimize or eliminate the need for intermediate storage as well as to thereby save space. To provide a multiple mold

vulcanization system adjacent the JP '529 building system would therefore have been obvious.

As to including a bladder attaching/detaching station, Oku et al. suggests (esp. col. 7, lines 9-48) that steps such as attaching/detaching the bladders are desirably performed as external arrangements (i.e. not performed at the vulcanization station). Further, Irie suggests that it is desirable to increase productivity of an opening/closing station by performing the bladder attaching/detaching at a separate station (esp. col. 3, lines 7-44 of Irie). To include a separate bladder attaching/detaching station would therefore have been obvious and lead to only the expected and predictable results.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 2002-254529 to Toyo Tire taken in view of Loeffler et al. (US 4,443,290), Oku et al. (US 6,702,912) and Irie (US 6,508,640) as applied to claims 9/14 above, and further in view of [Mitamura (US 6,196,819) or JP 08-281655 to Irie or JP 2002-337148 to Ito].

An arrangement of vulcanization stations in an arc around a central opening/closing station is known to be a suitable and effective configuration and would have been obvious for only the expected and predictable results - note fig. 3 and col. 1 of Mitamura (or JP '655 from which this was derived) as well as JP '148 to Ito (figs. 11/14).

11. Applicant cannot rely upon the foreign priority papers to overcome the JP 2002-337148 rejection because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Geoffrey L. Knable whose telephone number is 571-272-1220. The examiner can normally be reached on M-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Geoffrey L. Knable/
Primary Examiner, Art Unit 1791

G. Knable
June 13, 2009